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E-learning benefits nurse education and helps shape students' professional identity

Online learning has unique advantages, overcoming barriers of introversion and physical distance, creating new ways to communicate and shaping identity

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ABSTRACT McKenzie K, Murray A (2010) E-learning benefits nurse education and helps shape students' professional identity. *Nursing Times*; 106: 5, 17-19. E-learning is increasingly used in nurse education and practice development. This method can enhance learning opportunities for students and qualified nurses. This article examines the features of this technology and the ways in which it can be harnessed to maximise learning opportunities.

INTRODUCTION

E-learning or online learning is used increasingly in healthcare professionals' education. There is no single agreed definition of e-learning, but it generally refers to internet based forms of learning, rather than face to face interaction and where traditional methods of learning are supported by online resources.

Online learning takes a variety of forms and there are various reasons for using it (see Background box). This article explores whether e-learning can bring unique aspects to nurses' educational experience and, in particular, whether it can shape professional identity in the same way as more traditional forms of learning.

LEARNING AS IDENTITY FORMATION

According to social learning theorists, learning changes our identity. This may occur on a small scale, such as seeing ourselves as a little more skilled after integrating a new piece of knowledge. Alternatively, it may incorporate a major shift in the concept of self from, for example, student to qualified nurse.

The notion of learning as a process of shaping identity is not new; Piaget (1970) was one of the first theorists to argue that learning and identity are interrelated. He argued that people learn by absorbing new information that is either assimilated into their existing view of the world or which causes their world view to change so they can accommodate it. This process, by definition, shapes the person's outlook and identity.

Wenger (2000) argued that knowledge is a social thing that exists as part of the rules, culture and practices of different social communities, which he called "communities of practice". He viewed learning as the process of becoming increasingly aware of and participating in these practices and argued that this changes the person's identity. From this standpoint, nurse education can be seen as the process of helping students move from the fringes of

PRACTICE POINTS

- Developing a community of practice online can overcome barriers to learning such as distance or geographical location.
- E-learning allows people to learn and communicate ideas in different ways and can help introverts to take part.
- E-learning technologies can enable students to make mistakes without harming patients.

the nursing "community of practice" at the beginning of training towards legitimate membership at the end. In the meantime, their identity should also have changed from that of a novice to that of a competent healthcare professional.

A number of processes help this identity shift. As well as providing the factual information that underpins the nursing profession, nurse education teaches the unwritten rules – such as ways of behaving, styles of dress and artefacts – that are important to the community. These aspects are often not taught explicitly; instead, students observe them when they come into contact with nurses.

Research has shown, for example, that observing short video clips of staff showing how to deal with a range of difficult clinical situations can be as effective in increasing students' rated self-efficacy as receiving a lecture (McConville and Lane, 2006). It is likely that one reason for this success is the learning is placed firmly in the clinical context. This allows students to directly observe staff members' practice, rather than hearing about it second hand in a lecture.

For learning to be effective, it must make a link between the knowledge base and the social context in which it will be applied (de Freitas, 2006). This raises questions about how the experience of online learning, which by definition takes place in a different social context from face to face learning, shapes learner identity and how this process might work.

practice in depth

THE IMPACT OF E-LEARNING ON IDENTITY

There are some limitations to e-learning in terms of promoting identity shift. Research has suggested aspects of the informal culture can often be more powerful in terms of predicting behaviour than formal learning. For example, in some circumstances staff may be more likely to behave according to unwritten, informal staff practices which are passed from staff member to staff member rather than formal written rules which derive from the organisation (Emerson et al, 2000).

Many of these aspects, such as dress and social cues, may not be communicated as clearly via e-learning. This means e-learning may restrict some learning opportunities for students, although it may also facilitate the process of identity shift in ways that face to face teaching does not (Koper, 2004; Crook and Light, 2002; Talamo and Ligorio, 2001).

For example, while communities of practice are seen as fundamental to learning and identity change (Wenger, 2000), factors such as distance or geographical location "distance" may make it difficult for members to interact face to face. Developing a community of practice online can overcome these difficulties (Carter et al, 2006) and provide a range of ways for nurses to engage with peers and students (Andrew et al, 2009; Garrett and Jackson, 2006).

The technology used in e-learning also changes the nature of social interaction by allowing people to learn and communicate ideas in different ways, for example, via email, discussion boards, blogs and wikis. Taking part in an online community, where the usual social cues are not immediately obvious, offers people new ways of managing, exploring and presenting their identities (Talamo and Ligorio, 2001). Some

factors that are intrinsic to the technology used in e-learning can also influence the way people create and project identities online.

Anonymity versus disclosing identity

The fact that characteristics such as gender or physical appearance are not immediately obvious online can allow people to adopt different identities. Research has found many people do not reveal their real names in online communication, while many also change their age, gender, interests, occupation and physical features (Amichai-Hamburger et al, 2002; McCown et al, 2001). This suggests the nature of the technology used in e-learning may facilitate the identity shift that underpins learning.

Synchronous or asynchronous communication

E-learning for nurses often offers the opportunity for "live" forums, where people can react and respond at the same time; it also offers asynchronous communication, such as wikis or discussion boards, where people respond to each other after a delay (Sweeney et al, 2008; Boulos et al, 2006).

Researchers have concluded that, while these tools offer powerful opportunities for information sharing and collaboration (Boulos et al, 2006), the asynchronous nature of some of them can also influence the way identity is shaped. Having time to plan or correct a response and the ability to log on and off at will gives people greater control over internet relationships than over traditional social ones (Amichai-Hamburger et al, 2002).

Personality factors also affect the ways in which people use synchronous or asynchronous communication, with the latter suiting introverts better than the former (Maldonado et al, 2001). This research suggests e-learning environment may provide opportunities to participate in a community of practice for those who may otherwise exclude themselves. It may allow more introverted students to engage in learning more fully online than they would in traditional teaching situations.

Text, visual communication and avatars

E-learning differs from traditional methods of teaching, in that it often lacks the non-verbal and subtle cues of language, such as tone and intonation, which we take for granted in face to face communication. The use of podcasts and 'vodcasts' (video podcasts) in health education addresses this to some extent, by allowing students to hear

and see others (Boulos et al, 2006). In addition, "emoticons" (such as happy or sad faces) have been developed to express feelings and nicknames to express identity.

While many may view this lack of normal social cues as detrimental, for those with communication or anxiety problems e-learning can offer a way of interacting and learning that feels less threatening (Scealy et al, 2002). This aspect of e-learning also gives students an opportunity to explore using different, "non-traditional" communication methods – skills which are fundamental to working with many clients.

The increasing sophistication of e-learning has led to the development of complex virtual worlds where people can be represented by avatars (visual representations of themselves) such as an animation. Communities such as Second Life (secondlife.com) offer a range of virtual experiences and opportunities that match and supersede those available in real life. For example, people in Second Life can choose to be male sky diving enthusiasts one minute and indulge their fantasy as a six foot, female salsa dancer the next.

People in such environments are not constrained by their physical or social characteristics, so a wider range of possibilities open up about identities to adopt, which would not be possible in face to face interactions (Talamo and Ligorio, 2001).

It can be argued these virtual worlds allow people to adapt identities to the learning context, giving them the experience, for however short a time, of "being" someone different. This ability can be harnessed in an educational context, via game informed learning, in which education is designed with game like qualities (Begg et al, 2005), to promote the identity shift seen to be essential for "deep learning" (Nelson and Blenkin, 2007; Gee, 2003).

Games, learning and identity

Game informed learning activities are increasingly used in e-learning, often to allow learners to role play being healthcare professionals in a safe context, before entering real practice (McKenzie et al, 2008; Nelson and Blenkin, 2007; Begg et al, 2007; 2005; de Freitas, 2006). Such activities are good at facilitating the identity shift required in professional training because they offer opportunities for learners to move easily from one identity to another (Begg et al, 2007).

Gee (2003) noted that learners have:

- Real world identities – these reflect their status and capabilities;

BACKGROUND

- E-learning can take a variety of forms including: internet based discussion boards; role play (Nelson and Blenkin, 2007); clinical quandaries (McKenzie et al, 2008); and simulations of clinical scenarios (Tait et al, 2008).
- There is growing evidence that e-learning can contribute to healthcare professionals' practice and knowledge base (Begg et al, 2007; 2005).
- There are often pragmatic reasons for developing e-learning activities, including the need to train an increasing number of nurses in response to government policy (Department of Health, 2002).

- Virtual identities – what they aspire to become;
- Projective identities – these act as a bridge between the two by allowing learners to perceive that they can take on the virtual identity as a real world identity.

A good game informed learning activity helps people to move towards their desired identity, in this case a qualified nurse. This is an active process whereby learners practise skills in a safe environment, make links with their real world selves and are rewarded for effort and success (Gee, 2003).

Such game based activities can be developed to meet broad learning objectives that apply to the nursing profession as a whole, as well as more specific objectives which are relevant to particular nursing specialties, such as working with people with learning disabilities and challenging behaviour (McKenzie et al, 2008).

CONCLUSION

Nurse education helps students move from being novices to qualified nurses and this learning process is underpinned by changes in students' identity.

E-learning is used increasingly in nurse education; while it is unable to provide some types of learning experience, research suggests that the technologies commonly used as part of online learning can help the process of identity change in ways that face to face teaching cannot.

E-learning can provide communities of practice online in situations where factors such as geographical location would otherwise make learning difficult.

It can offer students more control over online interactions than in face to face teaching, which may encourage introverted

students to engage more fully.

Finally, the properties intrinsic to the technologies used in e-learning allow students more flexibility over the identities they adopt. They can also experiment with the identity of "professional nurse" in a safe environment where they can make mistakes without harming patients.

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